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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,751	08/03/2001	Larry J. Cantwell	37922-0035	5952

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EXAMINER

IQBAL, NADEEM

ART UNIT PAPER NUMBER

2114

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/920,751

Applicant(s)

CANTWELL ET AL.

Examiner

Nadeem Iqbal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: This claim ends with a period after the word connectivity, but then seems to continue with further limitations, the period must be removed and include at the end of those limitations for those limitations to be part of this claim. Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "plural jumper plugs" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1, is rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al., (U.S. Patent number 6067286).

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1. Jones et al., teaches (col.1, lines 55-57) an ATM data network switch having two separate switch fabrics, and at least one switching controller, each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics. He thus teaches limitations pertain to fault tolerant switch that comprises at least two input/output boards, at least two fabric switch boards, one of which is adapted to function as a spare fabric switch board. He also teaches (col. 1, lines 65-67) that each switch fabric in turn comprises means for switching data cell transmitted from any one of the slot controllers to any of the other slot controllers. He thus teaches limitations pertain to a redundant command and control interface for the switch that comprises at least two control modules. He also teaches (col. 2, lines 30-33) that the primary reason for providing two or more paths between each slot controller and each other slot controller is fault tolerance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 2-9, are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al., (U.S. Patent number 6067286).

5. As per claims 2, He does not explicitly disclose a backplane multiplexed with the input/output boards. He teaches (col.1, lines 55-57) that each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics. He also teaches (col. 1, lines 65-67) that each switch fabric in turn comprises means for switching data cell transmitted from any one of the slot controllers to any of the other slot controllers. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to realize that He would include a backplane multiplexed with the input/output boards, since he teaches that each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics, thus would include a backplane to provide external data links and being separately connected to the two separate switch fabrics and the ability to switch data cell transmitted from any one of the slot controllers to any of the other slot controllers.

6. As per claim 3, He does not explicitly disclose at least two fan modules. It would have been obvious to a person of ordinary skill in the art to provide fan modules for cooling purposes in a type of switch as claimed due to presence of multiple controllers, and high speed circuitry and therefore is well known in the art.

7. As per claims 4 & 5, He also teaches (col. 6, lines 30-34) a one hundred twenty-eight bit path status register, 128 bits are made up of sixteen slot controllers times two cell processors per

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slot controller times two levels of priority times two switch fabrics, therefore would include 2 to 16 input/output boards, forming 1 to 8 input/output modules and also include protocol engine chips and local processors.

8. As per claim 6, He teaches as stated above sixteen slot controllers times two cell processors per slot controller times two levels of priority times two switch fabrics, therefore the control modules would include microprocessing capability and Ethernet capability.

9. As per claim 7, He teaches as stated per claim 1 above an ATM data network switch having two separate switch fabrics, and at least one switching controller, each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics. He thus teaches a redundant fabric switchboard for replacing a failed or degraded fabric switchboard.

10. As per claim 8, He teaches (col. 2, lines 30-32) that the primary reason for providing two or more paths between each slot controller and each other slot controller is fault tolerance, in accord with the invention, he thus would include two power modules in redundant configuration.

11. As per claim 9, Jones et al., substantially teaches the claimed invention as disclosed related to claim 1 above. He also teaches (col.1, lines 55-57) an ATM data network switch having two separate switch fabrics, and at least one switching controller, each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics. He thus teaches limitations pertain to FIO modules, at least one fabric switch. He also teaches (col. 1, lines 65-67) that each switch fabric in turn comprises means for switching data cell transmitted from any one of the slot controllers to any of the other slot controllers. He thus teaches limitations pertain to detecting failure, redirecting any failed

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backlink path to a spare fabric switch. a redundant command and control interface for the switch that comprises at least two control modules. He also teaches (col. 2, lines 30-33) that the primary reason for providing two or more paths between each slot controller and each other slot controller is fault tolerance. He does not explicitly disclose a backplane through at least one fabric switchboard. He teaches (col.1, lines 55-57) that each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics. He also teaches (col. 1, lines 65-67) that each switch fabric in turn comprises means for switching data cell transmitted from any one of the slot controllers to any of the other slot controllers. It would have been obvious to a person of ordinary skill in the art to realize that He would include a backplane through at least one fabric switch board, since he teaches that each switching controller having plurality of external data links and being separately connected to the two separate switch fabrics, thus would include a backplane to provide external data links and being separately connected to the two separate switch fabrics and the ability to switch data cell transmitted from any one of the slot controllers to any of the other slot controllers.

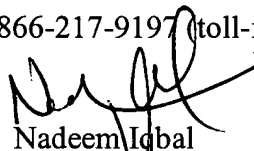
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadeem Iqbal whose telephone number is (703)-308-5228. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703)-305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nadeem Iqbal
Primary Examiner
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